

Yaroslav Shumuk, P.Eng.

Mr. Shumuk has 25 years of specialized experience in hydrologic investigations, hydraulic modelling for floodplain mapping and flood control studies, river morphology studies and design of flood protection works and erosion control measures. He has 10 years experience in the application of unsteady flow models and has been trained in the use of MIKE-11 and ONE-D.

Experience

River and Lake Hydraulics Projects

- City of Abbotsford – Sumas Prairie Flood Hazard Investigation – continuation of flood studies commenced by others, including completion of the 1990 flood calibration and testing of flood mitigation options using ONE-D.
- City of Chilliwack - Assessment of Fraser River Erosion at Island 22
- City of Chilliwack - Fraser and Harrison Rivers Hydrologic and Hydraulic Investigations - phase 2 of the dyke and flood profile updating for the Fraser River Gravel Reach
- City of Chilliwack - Fraser River Gravel Reach Hydraulic Modeling to update the design flood and dyke profiles of the Fraser River from Laidlaw to Mission
- Canadian Forest Products Ltd. - Additional bank protection works along the Fraser river near the Northwood Pulp Mill and the PG Sawmill (2001)
- Northwood Pulp and Timber Limited - Fraser River erosion study, and design of bank protection works - Fraser River East and West Banks near Prince George
- Canadian Department of Indian Affairs and Northern Development - Flood and erosion hazard assessment studies for First Nation communities situated along the major rivers (Fraser, Kitimat, Nass, Skeena, Stikine) of northern British Columbia
- B. C. Ministry of Environment - Oyster River Flood Control Project - Analysis and Final Design of Armoured Dykes
- City of Surrey - Hydrotechnical Evaluation for the Serpentine-Nicomel Lowlands Flood Control Study using the ONE-D Hydrodynamic Modelling Program
- Halalt First Nation - Feasibility Study for Flood Protection and Bank Stabilization
- Carrier Lumber Ltd. - River Training Works - Willow River Bridge (near Prince George)
- Pachenaht Band - Design of bank protection works for the San Juan River
- City of Chilliwack - Fraser River and Harrison River Hydrologic and Hydraulic Investigations
- City of Surrey - Preparation of the Hook Brook Flood Control Functional Plan using the MIKE 11 Hydrodynamic Modelling Program
- B.C. Ministry of Environment - Serpentine-Nicomel Floodplain Mapping Project in Surrey and Langley, B.C. using hydrodynamic modelling
- B. C. Ministry of Environment - 200-Year Floodplain Mapping of Bonaparte River at Cache Creek.

- B.C. Ministry of Environment - 200-Year Floodplain Mapping for Salmon River near Falkland
- B. C. Ministry of Environment - 200-Year Floodplain Mapping for Courtenay, Puntledge and Tsolum Rivers
- B. C. Ministry of Environment - 200-Year Floodplain Mapping for Beaver Creek near Fruitvale
- Indian and Northern Affairs Canada/Environment Canada - Flood Risk Mapping for Sik-E-Dakh I. R. 2 and Kispiox I. R. 1 and Flood Risk Mapping for Kincolith I.R. 14
- Gitksan-Wet'suwet'en Gov't. Commission - Preliminary and Final Design of River Bank Protection along the Skeena River
- Fisheries and Oceans Canada - Bonaparte Lake Storage Project
- Texada Logging Ltd. - Horne Lake Flood Study
- Fisheries and Oceans Canada and B.C. Ministry of Environment - Cowichan Lake Storage Assessment
- B.C. Ministry of Environment and Fisheries and Oceans Canada - Hydraulic modelling of Bonaparte Falls for fishway design
- B.C. Ministry of Agriculture and Fisheries - Modelling of Sumas River and tributaries for design of channel improvements
- B. C. Ministry of Transportation and Highways - Scour Evaluation at Existing Bridges (South Thompson River, Nimpkish River and Pitt River)
- District of Abbotsford and District of Chilliwack - Modelling of Sumas Lake Canal and tributaries for channel improvement
- B.C. Ministry of Environment/Department of Fisheries and Oceans - Hydraulic Modelling of Mitchell Lake Outlet Structure
- B.C. Ministry of Transportation and Highways - Steep channel hydraulic modelling (Harvey Creek)
- Quintette Coal Limited - Murray River rehabilitation study, Murray River 200-year floodplain delineation and Erosion protection for the M-11 Diversion
- B.C. Rail - Bridge hydraulics investigations for Murray and Wolverine Rivers
- McGregor River Diversion Project - River regime and morphology studies for Parsnip and McGregor Rivers using HEC-6 Program
- Peace River Sites C and E - Field data collection for river regime and morphology study

Hydrologic Investigations

- Stikine River Project - Overview hydrology study
- Iskut River Project - Overview hydrology study
- Stikine River Project - Feasibility Study. Estimation of the probable maximum flood of the Stikine River at the site of a proposed dam. Application of UBC Watershed Model
- Columbia River flood routing study
- Canadian International Development Agency - Prefeasibility Study for Itare Dam Water Supply Project, Kenya

- District of Campbell River - Willow Creek Master Drainage Plan (includes Homalco I. R. No. 9)
- Tseycum Band - Union Bay I. R. No. 4 - Master Drainage Plan
- Newhawk Gold Mines Ltd. - Hydrology for Sulphurets Project Stage I/II Report
- Northair Mines Ltd. - Hydrology for Willa Gold Project Stage I/II Report
- District of Coquitlam - Flood estimates for Town Centre Drainage Study
- Quintette Coal Limited - Hydrologic investigations for Quintette Coal Stage II Report

Civil Design Projects

- Quintette Coal Limited - Final design and contract drawings for Shikano water management plan (four sediment ponds and a major diversion)
- B.C. Ministry of Transportation and Highways - Design of B.C. Railway realignment at Alberta Creek
- Gulf Canada Resources Ltd. - Mount Klappan Anthracite Project water management plan
- Westar Mining Ltd. - Preliminary design for Greenhills Expansion water management plan
- Cordilleran Engineering Ltd. - Hydrology and river crossing hydraulics for route location, and cost estimates for Midway Mining Project 25-km access road
- Cadillac Explorations Limited - Hydrology and river crossing hydraulics for route location for a 105-mile road to the Prairie Creek Mining Project, N.W.T.

Environmental Projects

- Quintette Coal Limited - Water quality monitoring program and Suspended sediment study and sediment pond performance evaluations
- Carolin Mines Ltd. - Contingency plan for toxic spills and operational emergencies
- Cadillac Explorations Limited - Toxic spill contingency plan for the Prairie Creek Project

Water Quality Projects

- Establishment and maintenance of flow and water quality data networks
- Sediment pond performance monitoring
- Greenhills Project - hydrology/water quality study for Stage II report

Geotechnical

- Peace River Site C Project. Drilling inspection for dam foundation investigation
- Hat Creek Project. Slope stability and seepage analyses for two earthfill dams

Employment History

1995 to Present	UMA Engineering Ltd., Victoria, B. C., Senior Water Resources Engineer
1980 to 1995	KPA Engineering Ltd., Consulting Engineers, Victoria, B.C., Senior Water Resources Engineer
1979 to 1980	Kaiser Resources Limited, Environmental Services Department, Water Quality Engineer
1976 to 1979	B.C. Hydro Engineering Group, Hydroelectric Design Division, Junior Engineer, Hydrology Section

Education

1976, B.A.Sc. (Civil Engineering), University of British Columbia

Affiliations

Registered Professional Engineer in British Columbia (1979)
Member, Canadian Water Resources Association